



## INSTALLATION & OPERATION MANUAL

### GR SERIES GAS FRYERS



#### MODELS

1GR35M	ML-136407
1GR45M	ML-136408
1GR65M	ML-136409
1GR85M	ML-136410
2GR45MF	ML-136417
2GR65MF	ML-136418
2GR85MF	ML-136419
3GR45MF	ML-136420
3GR65MF	ML-136421
3GR85MF	ML-136422
4GR45MF	ML-136423

For additional information on Vulcan-Hart or to locate an authorized parts and service provider in your area, visit our website at [www.vulcanhart.com](http://www.vulcanhart.com)

## **IMPORTANT FOR YOUR SAFETY**

**THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.**

**POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.**

### **IMPORTANT**

**IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.**

### **FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.**

### **WARNING**

**IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.**

**IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.**

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# INTRODUCTION

## GENERAL

Vulcan Fryers are produced with quality workmanship and material. Proper installation, usage and maintenance will result in many years of satisfactory performance.

Before installing the fryer, thoroughly read this manual and carefully follow all instructions in the order given.

This manual is applicable to models listed on the cover page. Procedures in this manual will apply to all models unless specified. Pictures and illustrations can be of any model unless the picture or illustration needs to be model-specific.

**Note:** For units equipped with KleenScreen™, refer to the KleenScreen™ Interplumbed Filtration System User's Guide and the supplemental KleenScreen™ instructions supplied with the fryer battery.

## IN CASE SERVICE IS NEEDED

In case service is needed, have the following information filled in by the Vulcan Authorized Service Technician who installed this equipment. Also, you may wish to note this information on the front cover so it would be more easily noticed.

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Authorized Service Technician

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Phone

To locate the closest authorized service agency, go to [www.hobartservice.com](http://www.hobartservice.com) and click on locations. Enter your zip code for service center information.

You may also call 1-888-4HOBART.

## ORDERING PARTS

Customers may order parts directly from their local authorized service center. If not known, call Vulcan Customer Service at 800-814-7028.

To speed up your order, provide the model number, serial number, gas type, part needed, item part number (if known), and quantity needed.

## FRYER CAPACITIES

Model	# of Heat Tubes	BTU/hr	Total MJ	Width inch (cm)	Shortening, lbs (kg)
35	3	90K	95.00	15.5 (39)	35-40 (16-18)
45	4	120K	126.60	15.5 (39)	45-50 (20-23)
65	5	150K	158.25	21 (53)	65-75 (29-34)
85	5	150K	158.25	21 (53)	85-95 (39-43)

## RECEIVING AND UNPACKING

This fryer was carefully inspected before leaving the factory. Upon acceptance of the shipment, the transportation company assumes full responsibility for safe delivery.

Immediately after unpacking the fryer, check for possible shipping damage. If the fryer is damaged, save the packaging material and contact the carrier within 15 days of delivery.

Check that the following standard items, found in the fryer tank, have been included:

- Crumb Rack
- Basket Hanger
- Adjustable Casters (4)
- Drain Pipe Extension
- Twin Fry Baskets (2)
- Crumb Scoop
- Tank Brush
- Cleanout Rod
- Manual and Warranty

## ASSEMBLY

With the exception of the standard items listed above, the fryer is shipped fully assembled. The standard items (except casters) require no special installation instructions.

Separate instructions for installing the casters are included with the casters.

# INSTALLATION

**WARNING:** THIS EQUIPMENT SHALL BE INSTALLED ONLY BY A LICENSED GAS FITTER.

**Caution:** Do not use the door or its handle to lift the fryer.

Before installing the fryer, verify that the type of gas (natural or propane) agrees with the specifications on the fryer data plate, which is located on the inside of the door panel. Make sure the fryer is configured for the proper elevation.

Record your fryer model, device, and serial numbers for future reference in the space provided below. This information can be found on the fryer data plate.

**Fryer Model No.:** \_\_\_\_\_

**Device:** \_\_\_\_\_

**Serial No.:** \_\_\_\_\_

## TOOLS NEEDED FOR INSTALLATION

- Standard set of plumbing and hand tools.
- AC current tester.
- Gas pressure test gauge.

## REQUIREMENTS FOR INSTALLATION

### Electrical

Voltage – 120 AC (or 240 AC optional)  
Voltage is required for KleenScreen™ only.  
No Voltage for GR Free Standing Fryers.

Amps – 15 Amps

Frequency – 50/60 Hz

### Gas Supply Pressure

Natural – 0.80 kPa (4" W.C.)

Propane – 2.75 kPa (10" W.C.)

**WARNING:** IF INCOMING PRESSURE EXCEEDS 3.45 kPa (14" W.C., 1/2" PSI), AN ADDITIONAL PRESSURE REGULATOR MUST BE INSTALLED.

### Checking the Gas Supply Pressure

**Caution:** The fuel supply system must be tested before the fryer is used.

If the fuel line is going to be tested at a pressure greater than 1/2 psig (3.45 kPa), make sure that the fryer is disconnected from the fuel line. If the fuel line is to be tested at a pressure equal to or less than 1/2 psig (3.45 kPa), the fryer can be connected but the unit's gas valve must be closed.

### Clearances

- Minimum clearance from combustible construction:
  - 6" (15 cm) from the sides of the fryer
  - 6" (15 cm) from the back of the fryer

The fryer may be installed on combustible floors.
- Minimum clearance from noncombustible construction:
  - 0" from the sides of the fryer
  - 0" from the back of the fryer.
- Between the fryer and any open-top flame units:
  - at least 16" (41 cm)**
- Allow space for servicing and operation, such as opening the rear door to set temperature and light the pilot.

## Air Supply and Ventilation

**WARNING:** DO NOT OBSTRUCT THE FLOW OF COMBUSTION/ VENTILATION OR AIR OPENINGS AROUND THE FRYER. ADEQUATE CLEARANCE AROUND THE FRYER IS NECESSARY FOR SERVICING AND PROPER BURNER OPERATION.

- Install fryer in an area with sufficient air supply for gas combustion at fryer burners.
- Do not obstruct the flow of combustion and ventilation air.
- Provide adequate clearance for air openings into the combustion chamber.
- Do not permit fans to blow directly onto fryer.
- Avoid wall-type fans, which create cross-currents within a room. Avoid open windows next to the sides or back.

Also see FLUE CONNECTIONS in this manual for additional ventilation requirements.

**WARNING:** THE EQUIPMENT AREA MUST BE KEPT FREE AND CLEAR OF COMBUSTIBLE SUBSTANCES.

## CODES AND STANDARDS

Install the fryer in accordance with:

### In the United States:

- State and local codes, or in the absence of local codes, with:
- National Fuel Gas Code, ANSI-Z223.1/ NFPA #54 (latest edition). This shall include but not be limited to: NFPA #54 Section 10.3.5.2 for Venting.

Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471

- National Electrical Code ANSI/NFPA70 (latest edition) (if applicable).

### In Canada:

- Local codes.
- CSA Standard C22.2 No. 3 Electrical Features of Fuel Burning Equipment.
- CAN/CGA-B149.1 National Fuel Gas Code (latest edition), available from:  
The Canadian Gas Association  
178 Rexdale Blvd., Etobicoke, Ontario  
Canada M9W 1R3.

### In Australia:

- Fryers must be installed in accordance with the Gas Installation Code AG601 (latest edition).
- Building Codes and any other relevant statutory authority having jurisdiction. Refer to data plate (attached to the inside door panel) for gas consumption, injector size and any other pertinent information about the device.

## SECURING THE FRYER

**WARNING:** THE FRYER MUST BE PROPERLY RESTRAINED TO PREVENT MOVEMENT OR TIPPING. THIS RESTRAINT MUST PREVENT THE FRYER FROM MOVEMENTS THAT WOULD SPLASH HOT LIQUIDS ON PERSONNEL, WHICH COULD CAUSE SEVERE BURNS OR INJURIES.

The fryer must be restrained to prevent tipping and the splashing of hot liquid. The means of restraint may be the manner of installation, such as connection to a battery of appliances, or installing the fryer in an alcove, or by separate means such as adequate ties.

Instructions for installing casters to the fryer are included with the casters.

If casters are to be installed, refer to Gas Connection for Units on Casters under GAS CONNECTIONS in this manual.

**Note:** Leveling of the fryer is done after gas connections have been made. See LEVELING THE FRYER in this manual.



## FLUE CONNECTION

**Caution:** Ensure that your ventilation system does not cause a down draft at the fryer's flue opening.

Down drafts will not allow the fryer to exhaust properly and will cause overheating which may cause permanent damage.

Damage caused by down drafts will not be covered under equipment warranty.

**Caution:** Never allow anything to obstruct the flow of combustibles or ventilation exiting from the flue.

**Caution:** Do not put anything on top of the flue area.

**Caution:** Never connect blower directly to flue openings. The direct flow of air will cause poor ignition, poor temperature recovery, inefficient operation of the fryer, and could extinguish the pilot.

Make the flue connection as follows:

- Comply with *Vapor Removal from Cooking Equipment*, ANSI-NFPA Standard #96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
- Locate the fryer under a hood with adequate connection to an exhaust duct. The hood must extend 6" (15 cm) beyond fryer sides.
- Clearance above the fryer should be adequate for combustion byproducts to be removed efficiently.
- An 18" (46 cm) minimum clearance should be maintained between the flue vent and the filters of the hood venting system.
- Never make flue connections directly to the fryer.
- Do not obstruct the flow of the flue gases from the appliance. Proper air balance should be maintained in the room.

## GAS CONNECTION

**WARNING:** NEVER SUPPLY FRYER WITH A GAS TYPE NOT INDICATED ON THE DATA PLATE. USING INCORRECT GAS TYPE WILL CAUSE IMPROPER OPERATION. IF YOU NEED TO CONVERT THE FRYER TO ANOTHER TYPE OF FUEL, CONTACT YOUR AUTHORIZED SERVICE TECHNICIAN.

**Caution:** All gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

**Note:** When using thread compound, use very small amounts on male threads only. DO NOT apply compound to the first two threads. Doing so may allow some of the compound to enter the gas stream, resulting in clogging of burner orifices and/or the control valve.

The gas inlet is located on the lower rear of the fryer. Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer.

The gas supply line must be at least the equivalent of 1/2" (1.3 cm) iron pipe for single units and 1-1/4" (3.2 cm) for batteries. If using the optional quick-disconnect flex hose, 3/4" (1.9 cm) iron pipe for single units and 1-1/4" (3.2 cm) iron pipe for batteries.

Make sure the pipes are clean and free of obstructions, dirt, and piping compound. A battery requires one or two connections of appropriate size and type for the gas requirement.

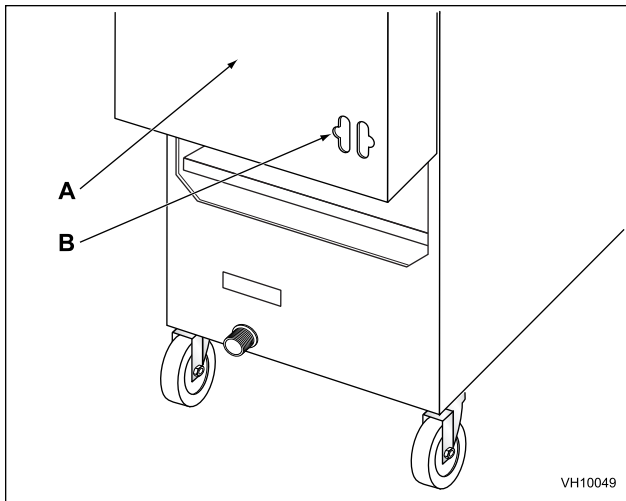
**WARNING:** PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, fully purge gas pipes to remove air.

### Quick-Disconnect for Units on Casters

For an appliance equipped with casters:

- The installation shall be made with a connector that complies with the Standard for *Connectors for Movable Gas Appliances, ANSI Z21.69* or *Connectors for Moveable Gas Appliances, CAN/CGA-6.16*, and a quick-disconnect device that complies with the Standard for *Quick-Disconnect Devices for Use with Gas Fuel, ANSI Z21.41*, or *Quick Disconnect Devices for Use with Gas Fuel, CANI-6.9*.
- When installing a quick disconnect you must also install a means for limiting the movement of the fryer. This device will prevent the gas line or the quick disconnect from being strained. The restraining device should be attached to the cutout on the back panel. See illustration for location.



- A Rear of Fryer**
- B Strain Relief Chain Connection (Chain supplied by others)**

- In Australia, use only the caster supplied by the manufacturer for the fryer device. The fryer must be installed using a hose assembly restraining device to limit the movement of the appliance in accordance with AS1869.
- The fryer must be installed with a connector (not supplied by Vulcan) complying with the above code(s).

- The fryer must be installed with restraining means to guard against transmission of strain to the connector. See illustration.
- The fryer must be installed with the casters provided.
- If the restraint is ever to be disconnected, first turn the gas supply OFF.

### ELECTRICAL CONNECTION

**Note:** Only the KleenScreen™ style fryer requires an electrical connection.

**WARNING:** ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE AND / OR OTHER LOCAL CODES.

**WARNING:** APPLIANCES EQUIPPED WITH ELECTRICAL SUPPLY CORD(S) ARE PROVIDED WITH A THREE-PRONG GROUNDING PLUG, WHICH MUST BE CONNECTED TO A PROPERLY GROUNDED RECEPTACLE. IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THE PLUG.

KleenScreen™ fryers are equipped with a 120-V, 60-Hz, 1-phase cord and plug.

Do not connect fryer to electrical supply until after gas connections have been made.

### LEVELING THE FRYER

Check the level of the fryer by placing a level on top of the fryer after gas connections have been made.

Ensure that the fryer is level front-to-back and side-to-side in the final installed position.

If using casters, lock the wheels after unit is level.

## OPERATION

**WARNING:** HOT OIL AND PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING, AND SERVICING THE FRYER.

**WARNING:** SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS.

DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

**WARNING:** THE ON-SITE SUPERVISOR IS RESPONSIBLE FOR ENSURING THAT OPERATORS ARE MADE AWARE OF THE HAZARDS OF WORKING WITH HOT OIL, PARTICULARLY OIL FILTRATION, DRAINING, AND CLEANING PROCEDURES.

**Note:** Do not use chlorine or sulfate/sulfide cleaners.

- Wash any accessories shipped with unit.
- Rinse fryer and accessories thoroughly and drain the fryer. (Open the front door to access the drain valve.)

**CAUTION:** On fryers equipped with the KleenScreen™ filtering system, do not drain cleaning solution into the pump or filter system. See the KleenScreen™ manual for information on cleaning. Use the Boil-Out-ByPass™ drain extension provided with the KleenScreen™ Fryer. Follow instructions in KleenScreen™ supplemental manual.

- Wipe tank completely dry with a soft, clean cloth.

### OVER-TEMPERATURE SHUTDOWN

If the shortening becomes overheated, a high-temperature shutoff device will turn the gas valve off and extinguish the pilot.

If the fryer shuts down due to overheating, DO NOT relight the pilot until the shortening temperature is below 300°F (149°C).

If an overheating situation persists, contact your local Vulcan-Hart authorized service office.

### BEFORE FIRST USE

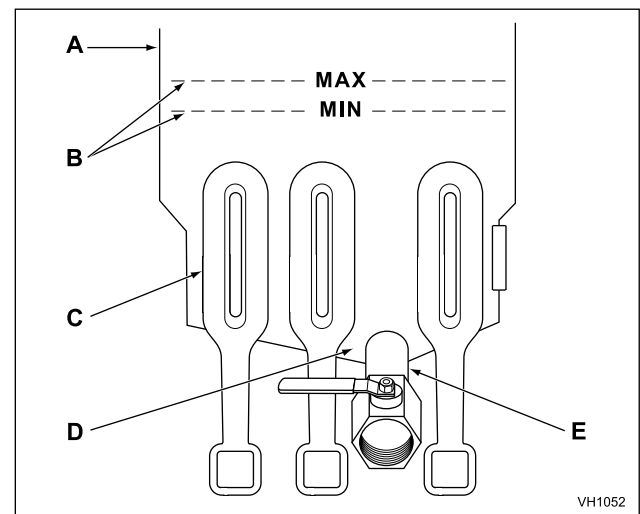
#### Cleaning

New units are wiped down at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process.

- Before any food preparation, thoroughly wash protective oil from all surface parts and the tank interior with hot, soapy water to remove any film residue and dust or debris.

### FILLING TANK WITH SHORTENING

Vulcan-Hart requires that liquid shortening be used in all GRM Series Fryers.



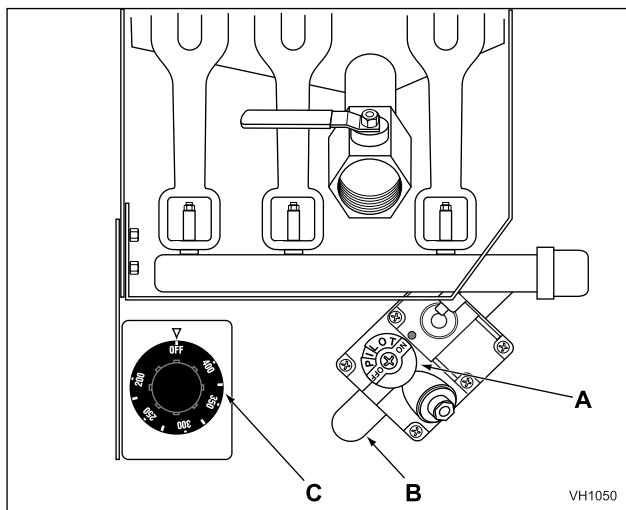
- A Fryer Tank
- B MIN and MAX Fill Level Lines
- C Heat Pipes
- D Cold Zone
- E Drain Pipe

**CAUTION:** Solid shortening should NOT be used with GRM Fryers with millivolt controls. Melting solid shortening will damage the fryer tank and void your warranty.

- Close the drain valve.
- Fill the fryer tank with liquid shortening.
- Shortening level should be between the MIN and MAX lines in fryer tank. Shortening will expand when heated. Do not fill the fryer tank past the MAX line.
- Add fresh shortening as needed to maintain oil level.

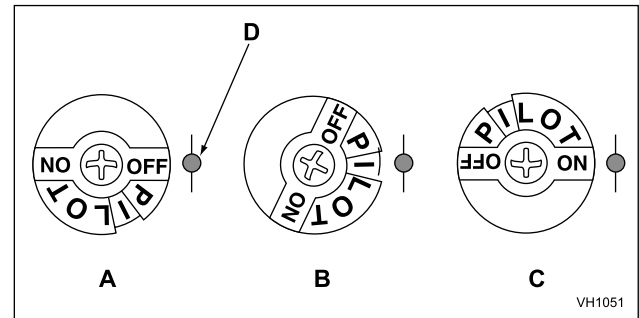
### LIGHTING THE FRYER (FREE-STANDING MODELS)

**WARNING:** BEFORE TURNING ON THE BURNERS, THE FRYER TANK MUST BE FILLED WITH LIQUID SHORTENING. NEVER OPERATE FRYER EMPTY OR THE FRYPOT WILL BE DAMAGED AND MAY CAUSE A FIRE, VOIDING YOUR WARRANTY.



- A** Gas Valve Knob
- B** Gas Supply
- C** Thermostat Knob

1. Open the rear door.
2. Turn the thermostat OFF (See Figure, view A). The thermostat is located behind the door.
3. Push the gas control valve knob and turn to OFF. Wait 5 minutes for unburned gas to vent.
4. Push and turn gas control valve knob to the "I" in PILOT (See Figure, view B).
5. While still holding the knob in, light the pilot with a lit taper. Continue to depress the knob until pilot remains lit when knob is released. If the pilot does not remain lit, repeat steps 3 through 5.
6. Depress and turn gas control knob to ON (See Figure, view C).
7. If gas supply is interrupted, repeat steps 2 through 6.



- A** Gas Valve Knob, View A
- B** Gas Valve Knob, View B
- C** Gas Valve Knob, View C
- D** Indicator Point, All Views

### TURNING ON THE FRYER (FREE-STANDING MODELS)

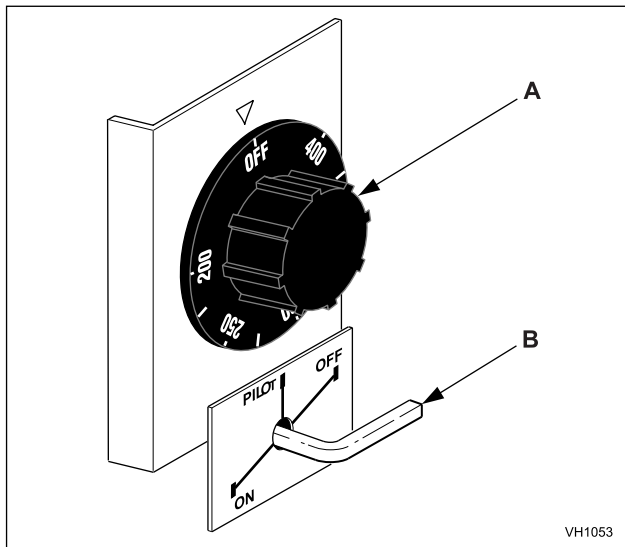
- Set the thermostat knob to the desired temperature.
- After the set temperature has been reached, the thermostat shuts off the gas flow to the burners.
- The pilot remains lit. The burners will cycle on and off, maintaining the set temperature.

### TURNING OFF THE FRYER (FREE-STANDING MODELS)

1. Turn the thermostat OFF.
2. To keep the pilot lit, turn the gas valve knob to "I" in PILOT.
3. To shut off all gas to the system, including the pilot, turn the gas valve knob to OFF.

### LIGHTING THE FRYER (KLEENSCREEN™ MODELS)

**WARNING:** BEFORE TURNING ON THE BURNERS, THE FRYER TANK MUST BE FILLED WITH LIQUID SHORTENING. NEVER OPERATE FRYER EMPTY OR THE FRYPOT WILL BE DAMAGED AND MAY CAUSE A FIRE, VOIDING YOUR WARRANTY.



- A Thermostat Knob**  
**B Gas Control Valve Handle**

1. Open the door.
2. Turn thermostat knob to OFF.
3. Push gas valve handle in and turn arm to OFF. Wait 5 minutes for unburned gas to vent.

4. Push the gas valve handle in and turn to PILOT.
5. While still depressing the handle, light the pilot with a lit taper. Continue with steps 3 through 5 until the pilot remains lit when the arm is released.
6. Push in and turn gas valve handle to ON.
7. Repeat steps 2 through 6 if gas supply is interrupted.

### TURNING ON THE FRYER (KLEENSCREEN™ MODELS)

- Set the thermostat knob to the desired temperature.
- When the set temperature has been reached, the thermostat shuts off gas flow to the burners.
- The pilot remains lit. The burners will cycle on and off to maintain the set temperature.

### TURNING OFF THE FRYER (KLEENSCREEN™ MODELS)

1. Turn the thermostat OFF.
2. To keep the pilot lit, turn the gas valve to PILOT.
3. To shut off all gas to the system, including the pilot, turn the gas valve to OFF.

### EXTENDED SHUTDOWN

1. Thoroughly drain the fryer. Refer to DRAINING THE FRYER.
2. Clean the fryer according to CLEANING.
3. Turn the thermostat knob to OFF.
4. Push in the gas valve arm or pilot knob and turn to OFF.
5. Turn off the main gas shutoff valve.

## BASIC FRYING INSTRUCTIONS

- Set the desired temperature and allow shortening to heat up to that temperature.
- Fry items that are about the same size together to ensure equal doneness.
- Drain or wipe dry raw or wet foods to minimize splatter when lowering into the hot shortening.
- Keep shortening between the MIN and MAX lines. Do not fill the fryer tank past the MAX line. Shortening will expand when heated.
- Add fresh shortening as needed.

### Fry Basket Guidelines

- Do not overfill baskets. (See table for Recommended Basket Capacities below.)
- Carefully lower basket into oil.
- When frying doughnuts and fritters, turn product only once during frying.
- When cooking French fries or onion rings, shake basket several times in a way that does not splatter the shortening.
- Batter-covered foods should be dropped carefully, one by one, into shortening or basket. If you use the basket, first dip basket into shortening to reduce batter build-up on basket surfaces.
- When frying is completed, remove basket or product. Hang basket on rear basket hanger.
- Do not salt food over the shortening because salt could cause a chemical change in the oil.

Basket Capacities, Recommended	
Fryer Model (Basket Size)	Pounds per Basket
35	1.5 (0.7 kg)
45	2.5 (1.1 kg)
65	3.0 (1.4 kg)
85	3.5 (1.6 kg)

## EXTENDING SHORTENING LIFE

Shortening life can be extended by following these guidelines:

- Do not salt foods over the fryer.
- Use good-quality shortening.
- Filter shortening daily (at a minimum).
- Replace shortening if it becomes poorly flavored.
- Keep equipment and surroundings clean.
- Set thermostats correctly.
- Remove excess moisture and particles from food products before placing in fryer.

## DRAINING THE TANK

**WARNING:** WHEN HANDLING HOT OIL, WEAR INSULATED AND OIL-PROOF GLOVES.

**Caution:** Before opening the drain valve, always turn off the fryer. This will prevent the heating system from coming on when the tank is empty and prevent causing a fire.

You will need a container capable of holding 400°F (204°C) oil and insulated oil-proof protective gloves.

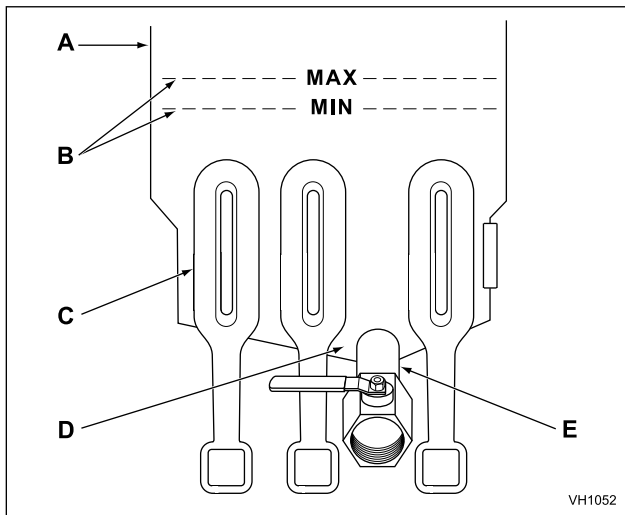
1. Heat shortening to a liquid state.
2. Turn the thermostat to OFF.
3. To keep the pilot lit, turn the gas valve knob to "I" in PILOT (free-standing models), or the gas valve handle to "PILOT" (KleenScreen™ models).
4. Direct the drain down spout into the container that you want to drain the shortening into.
5. Open the drain valve. The oil will drain into the container. When the container is full or the fryer tank is empty, close the drain valve. Repeat this step until fryer tank is empty.
6. If desired, perform the weekly clean-out as described under CLEANING.
7. Once tank is completely empty, add new shortening and set thermostat to desired temperature.

## DAILY FILTERING – ALL MODELS

**WARNING:** HOT OIL AND HOT PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING, AND SERVICING THE FRYER.

**WARNING:** WHEN HANDLING HOT OIL, WEAR INSULATED AND OIL-PROOF GLOVES.

- Filter shortening at least once a day. Refer to the instructions provided with your filtering equipment.
- A cold fryer will not drain properly. Always filter shortening between 250°F and 350°F. The shortening under the heat pipes in the cold zone area will remain hard if the heat is on for only a few minutes. If necessary, use the clean-out rod to carefully stir the hard shortening to an area above the cold zone where it will melt. Use the tank brush to help clear sides and tubes of debris.



- A Fryer Tank**
- B MIN and MAX Fill Level Lines**
- C Heat Pipes**
- D Cold Zone**
- E Drain Pipe**

## CLEANING

**WARNING:** HOT OIL AND HOT PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING, AND SERVICING THE FRYER.

**WARNING:** WHEN HANDLING HOT OIL, WEAR INSULATED AND OIL-PROOF GLOVES.

### Daily

Clean your fryer regularly with the tank brush along with a damp cloth, and polish with a soft dry cloth. If regular cleaning is neglected, grease will be burned on and discolorations may form.

Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.

- Clean all exterior surfaces of your fryer at least once daily.
- Use a damp cloth with warm water and a mild soap or detergent.

**Note:** Do not use chlorine or sulfate/sulfide cleaners.

- Rinse thoroughly, then polish with a soft, dry cloth.
- Keep the fryer exterior clean and free of accumulated grease to prevent stubborn stains from forming. If regular cleaning is neglected, grease will become burned on and discolorations may form.
- Remove discolorations by washing with any detergent or soap and water.
- Use a self-soaping, nonmetallic scouring pad for particularly stubborn discolorations.
- Always rub with the grain of the stainless steel.
- Do not use a metallic scouring pad or harsh cleaners.

## BOIL OUT PROCEDURE

### Weekly or as required

1. Drain the tank as described under DRAINING THE TANK.
2. Once the shortening has been drained, flush out scraps and sediment with a small amount of warm shortening, using tank brush. Allow the tank to drain thoroughly.
3. Close the drain valve and fill the tank with a non-corrosive, grease-dissolving commercial cleaner. Follow the manufacturer's instructions.

**Note:** Do not use chlorine or sulfate/sulfide cleaners.

4. Add commercial boil-out solution. Solution level must be between the MIN and MAX levels on the fryer tank.

5. Set thermostat to the temperature recommended for the solution being used. Allow solution to simmer for about 15 to 20 minutes.
6. Drain the cleaning solution from the tank according to DRAINING THE TANK.
7. Close the drain valve and refill the tank with water. Add 1 cup (1/4 L) of vinegar to neutralize alkaline left by the cleaner. Solution level must be between the MIN and MAX level on the fryer tank.
8. Bring the solution to a simmer only, then turn the thermostat off. Allow to stand for a few minutes.
9. Drain the tank according to DRAINING THE TANK. Rinse thoroughly with clear, hot water. All traces of cleaner must be removed. Dry the tank thoroughly.
10. Close the drain valve and add shortening. Follow the FILLING TANK WITH SHORTENING procedure in this manual.

The fryer is now ready for use.



## MAINTENANCE

**WARNING:** HOT OIL AND HOT PARTS CAN CAUSE BURNS. USE CARE WHEN OPERATING, CLEANING, AND SERVICING THE FRYER.

**WARNING:** SPILLING HOT FRYING COMPOUND CAN CAUSE SEVERE BURNS. DO NOT MOVE FRYER WITHOUT DRAINING ALL FRYING COMPOUND FROM THE TANK.

### FLUE VENT INSPECTION

When the fryer is cool, inspect annually. Check the flue and clear any obstructions.

### REGULAR PREVENTIVE MAINTENANCE

The fryer should be kept on a regular preventive maintenance schedule. Contact your local Vulcan-Hart Service office for details.

#### Service in the US and Canada

Contact your local Vulcan-Hart Service office or address on the front of this manual.

#### In Australia

Contact Hobart Food Equipment PTY. LTD., 16 Hilly Street Morlake, N.S.W. 2137 Australia; P.O. Box 100, Concord N.S.W. 2137; Tel: (02) 9736 1200; Fax: (02) 9736 1555. [www.hobartfood.com.au](http://www.hobartfood.com.au)

# TROUBLESHOOTING

**WARNING:** FRYERS WITH KLEENSCREEN™ FILTERS: CERTAIN PROCEDURES IN THIS SECTION REQUIRE ELECTRICAL TESTS OR MEASUREMENTS WHILE POWER IS APPLIED TO THE MACHINE. EXERCISE EXTREME CAUTION AT ALL TIMES.

IF TEST POINTS ARE NOT EASILY ACCESSIBLE, DISCONNECT POWER, ATTACH TEST EQUIPMENT AND REAPPLY POWER TO TEST.

**WARNING:** DISCONNECT THE ELECTRICAL POWER TO THE FRYER AND FOLLOW LOCKOUT / TAGOUT PROCEDURES.



## TROUBLESHOOTING CHART

The Troubleshooting Chart provides a list of typical fault conditions. The left-hand column lists typical symptoms and the right-hand column lists causes in general order of probability.

PROBLEM	PROBABLE CAUSE
No heat.	Thermostat dial not turned on. Pilot not lit. Unit not plugged in (KleenScreen™ models only). Gas supply not turned on. Loose wire (call an authorized service agency). Thermopile (temperature probe) faulty (call Vulcan service).
Insufficient or too much heat.	Thermostat dial not set to desired temperature. Thermopile (temperature probe) encrusted. Thermopile faulty (call an authorized service agency). Hi-limit tripped and needs replacing. (Call an authorized service agency.)
Tank will not drain.	Shortening too cold.
Flame problems	Call (call an authorized service agency).



